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92-31

Henderson Building
Suite 203
2301 W Meadowview Rd
Greensboro, NC 27407

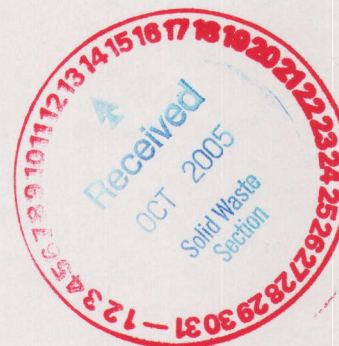
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October 12, 2005

Mr. Matt Gamble
Division of Waste Management/Solid Waste Section
1647 Mail Service Center
Raleigh, NC 27699-1646

**RE: First Semiannual Groundwater Monitoring Report of 2005
Material Recovery, LLC, C&D Landfill
Permit No. 92-31
JEI Project No. 710, Task 01**



Dear Matt:

Enclosed is a report of the laboratory analytical results for the water quality monitoring conducted in June 2005 at WCA's Material Recovery, LLC, Construction and Demolition Landfill. In accordance with the Groundwater Monitoring Plan, monitoring wells MW-1, -2, -3, -4, and -5 and surface water points SW-1, -2, and -3 were sampled on June 14, 2005. The samples were sent to Environmental Conservation Laboratories, Inc. and analyzed for the NC Appendix I list of volatile organic compounds and the eight RCRA metals. Dissolved barium in MW-3 and dissolved lead in MW-5 were also analyzed.

A summary of the detected constituents for the site is included as Table 1. No organic constituents were detected above their respective laboratory reporting limits during the June 2005 event. Three inorganic constituents were detected above the laboratory reporting limits during the June 2005 event. Barium was detected in MW-2 and MW-3, at concentrations consistent with previous results. Lead was detected in MW-5 at a concentration slightly higher than previous results. Barium in MW-3 and lead in MW-5 were detected at concentrations above their respective NC 2L Drinking Water Standards. Previous data suggest that turbidity may be a factor in the relatively high concentrations of total metals.

A summary of groundwater elevations is included as Table 2. The field information forms, a site plan map, and a compact disc containing the laboratory report for this event are also enclosed in this report. The next semiannual monitoring event is scheduled to take place in December 2005. If you have any questions, please feel free to contact me at (336) 323-0092.

Sincerely,
JOYCE ENGINEERING, INC.

David "Dusty" Y. Reedy II, P.G.
Project Hydrogeologist

Enclosure

Cc: Chris Roof – WCA of North Carolina, L.P.
Wilbert Carter – Material Recovery, LLC, C&D Landfill
Jeremey Kerly – Joyce Engineering, Inc.

Prepared for:

**WCA of North Carolina
421 Raleigh View Road
Raleigh, NC 27610**

JEI Project Number 710, Task 01



**FIRST SEMIANNUAL GROUNDWATER MONITORING
REPORT OF 2005
MATERIAL RECOVERY, LLC
CONSTRUCTION AND DEMOLITION LANDFILL
WAKE COUNTY, NORTH CAROLINA**

October 2005

Prepared by:



**2301 West Meadowview Road, Suite 203
Greensboro, North Carolina 27407
(336) 323-0092**

Tables

TABLE 1
SUMMARY OF DETECTED CONSTITUENTS
MATERIAL RECOVERY, LLC, C AND D LANDFILL

Parameter [NC 2L Standard], [EPA MCL] in µg/L	Date	CONCENTRATION (µg/L)									Blanks
		RL	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2	SW-3	
arsenic [10] [50]	May-02	10	—	—	—	—	—	—	ND	—	ND
	Aug-02	10	ND	ND	ND	ND	ND	—	—	ND	ND
	Jun-03	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Dec-03	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Jun-04	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Dec-04	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Jun-05	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
barium (total) [2000] [2000]	May-02	500	—	—	—	—	—	—	ND	—	ND
	Aug-02	500	ND	ND	4000	ND	ND	—	—	ND	ND
	Jun-03	500	ND	ND	3100	ND	ND	ND	ND	ND	ND
	Dec-03	500	160	420	1200	120	120	ND	ND	230	ND
	Jun-04	500	ND	540	1500	ND	ND	ND	ND	ND	ND
	Dec-04	500	ND	570	3100	ND	ND	ND	ND	ND	ND
	Jun-05	500	ND	520	2600	ND	ND	ND	ND	ND	ND
barium (dissolved)	Dec-03	500	—	—	1000	—	—	—	—	—	—
	Jun-04	500	—	—	1400	—	—	—	—	—	—
	Jun-05	500	—	—	2700	—	—	—	—	—	—
cadmium [1.75] [5]	May-02	1	—	—	—	—	—	—	ND	—	ND
	Aug-02	1	1.4	1.1	1.8	1.2	1.0	—	—	1.6	ND
	Jun-03	1	1.2	1.1	1.7	1.8	3.4	1.0	ND	1.1	ND
	Dec-03	1	ND	1.3	ND	ND	ND	ND	ND	ND	ND
	Jun-04	1	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Dec-04	1	ND	ND	ND	ND	1.1	ND	ND	ND	ND
	Jun-05	1	ND	ND	ND	ND	ND	ND	ND	ND	ND
chromium [50] [100]	May-02	10	—	—	—	—	—	—	ND	—	ND
	Aug-02	10	ND	ND	ND	ND	ND	—	—	ND	ND
	Jun-03	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Dec-03	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Jun-04	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Dec-04	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Jun-05	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
lead (total) [15] [15]	May-02	10	—	—	—	—	—	—	ND	—	ND
	Aug-02	10	ND	ND	ND	ND	19	—	—	ND	ND
	Jun-03	10	ND	ND	ND	ND	21	ND	ND	ND	ND
	Dec-03	10	ND	ND	ND	ND	34	ND	ND	ND	ND
	Jun-04	10	ND	ND	ND	ND	15	ND	ND	ND	ND
	Dec-04	10	ND	ND	ND	ND	62	ND	ND	ND	ND
	Jun-05	10	ND	ND	ND	ND	92	ND	ND	ND	ND
lead (dissolved)	Dec-03	10	—	—	—	—	ND	—	—	—	—
	Jun-04	10	—	—	—	—	ND	—	—	—	—
	Jun-05	10	—	—	—	—	ND	—	—	—	—
mercury [1.1] [2]	May-02	—	—	—	—	—	—	—	—	—	—
	Aug-02	0.5	ND	ND	ND	ND	ND	—	—	ND	ND
	Jun-03	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Dec-03	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Jun-04	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Dec-04	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND
selenium [50] [50]	May-02	20	—	—	—	—	—	—	ND	—	ND
	Aug-02	20	ND	ND	ND	ND	ND	—	—	ND	ND
	Jun-03	20	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Dec-03	20	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Jun-04	20	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Dec-04	20	ND	ND	ND	ND	ND	ND	ND	ND	ND
selenium	Jun-05	20	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE 1
SUMMARY OF DETECTED CONSTITUENTS
MATERIAL RECOVERY, LLC, C AND D LANDFILL

Parameter [NC 2L Standard], [EPA MCL] in µg/L	Date	CONCENTRATION (µg/L)									
		RL	MW-1	MW-2	MW-3	MW-4	MW-5	SW-1	SW-2	SW-3	Blanks
silver [18] [100]	May-02	10	—	—	—	—	—	—	ND	—	ND
	Aug-02	10	ND	ND	ND	ND	ND	—	—	ND	ND
	Jun-03	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Dec-03	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Jun-04	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Dec-04	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Jun-05	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes [530] [10000]	May-02	10	—	—	—	—	—	—	ND	—	ND
	Jun-03	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Dec-03	10	5	ND	ND	ND	ND	ND	ND	ND	ND
	Jun-04	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Dec-04	10	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Jun-05	10	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

1. RL = Reporting Limit
2. ND = Not detected at or above the reporting limit (=NCPQL)
3. — = not available
4. 2L Standard = North Carolina's groundwater quality standard established under 15A NCAC 2L, .0202.
5. Shaded values are greater than the 2L Standards.
6. Bolded values are greater than the EPA MCLs.
7. MW = monitoring well
8. SW = surface water
9. Blank data represent field blank, trip blank and laboratory blank values.
10. * = EPA Action Level
11. All concentrations are in micrograms per liter (µg/L).

TABLE 2
GROUNDWATER ELEVATION SUMMARY TABLE
MATERIAL RECOVERY, LLC, C AND D LANDFILL

Well No.	Monitoring Well Water Level Elevations				
	MW-1	MW-2	MW-3	MW-4	MW-5
Well TOC Elev. (ft)	280.95	213.37	218.54	201.52	203.38
Aug-02	252.98	195.37	191.13	186.43	191.82
Jun-03	258.29	197.10	195.09	191.72	193.45
Dec-03	258.17	197.55	195.62	191.88	194.13
Jun-04	257.17	196.89	194.54	191.12	193.43
Dec-04	256.71	196.85	193.93	190.70	193.38
Jun-05	256.73	196.40	193.41	190.13	193.01

Notes:

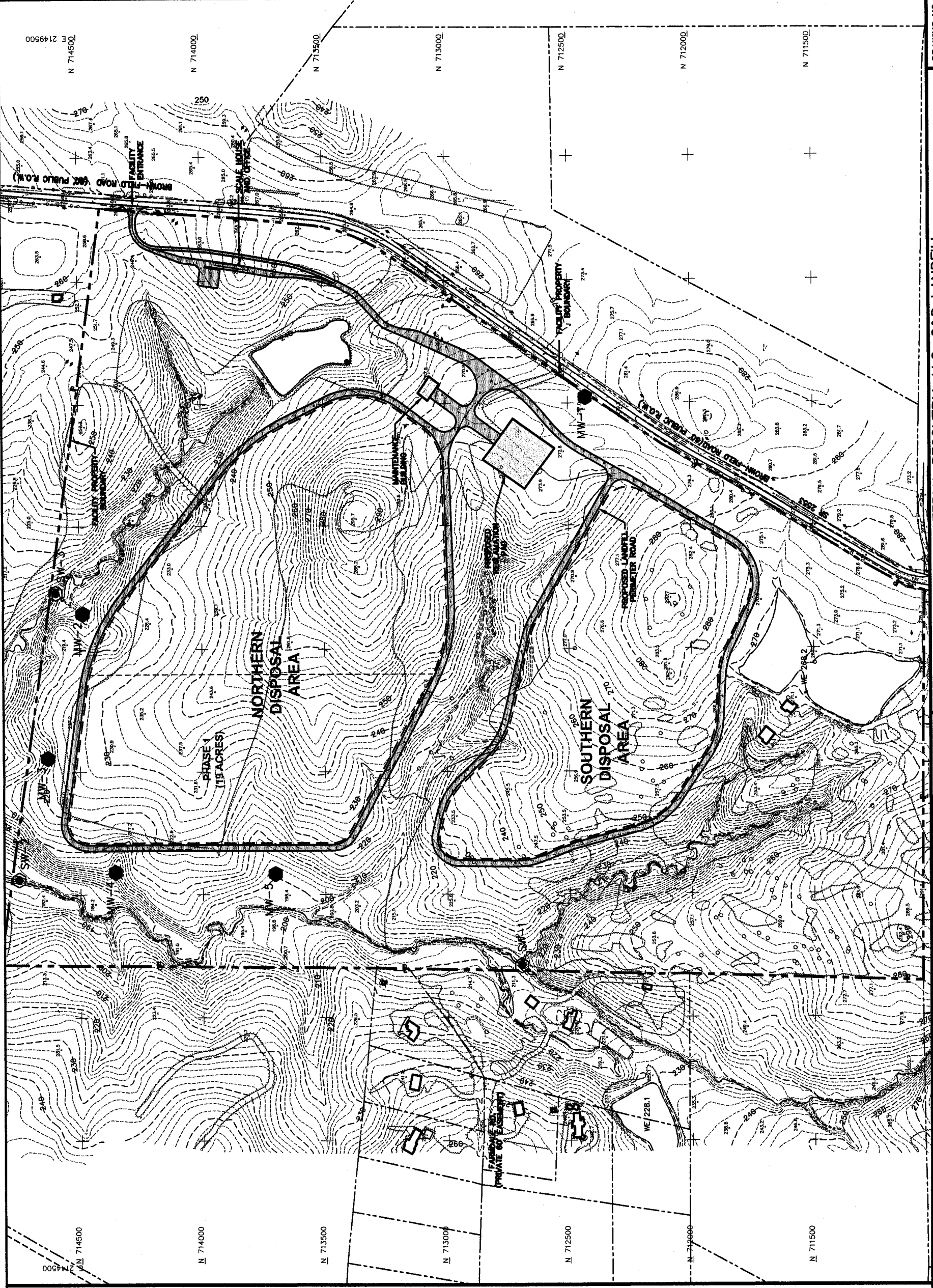
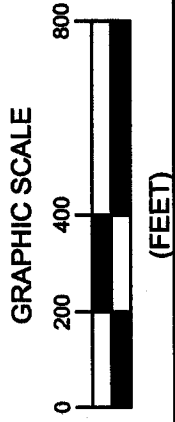
1. All elevations are referenced to mean sea level.
2. TOC = top of casing
3. Elev. = elevation
4. ft = feet

Drawing

NOTES:
1. INITIAL MAPPING PROVIDED BY SPATIAL DATA CONSULTANTS, INC. OF HIGH POINT, NORTH CAROLINA. DATE OF AERIAL FLYOVER WAS MARCH 27, 2001.
2. SURFACE MONITORING POINT LOCATIONS ARE APPROXIMATE.

LEGEND:

- EXISTING 10 FT. TOPOGRAPHIC CONTOUR
EXISTING 2 FT. TOPOGRAPHIC CONTOUR
APPROXIMATE LIMITS OF WASTE
APPROXIMATE PROPERTY LINE
ROAD
APPROXIMATE CENTERLINE OF STREAM
GROUNDWATER MONITORING WELL LOCATION
SURFACE WATER MONITORING POINT LOCATION



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Laboratory Reports and Field Data



ENVIRONMENTAL CONSERVATION LABORATORIES

4810 Executive Park Court, Suite 211
Jacksonville, Florida 32216-6069
Ph. (904) 296-3007 • Fax (904) 296-6210

10207 General Drive
Orlando, Florida 32824-8529
Ph. (407) 826-5314 • Fax (407) 850-6945

1015 Passport Way
Cary, North Carolina 27513
Ph. (919) 677-1669 • Fax (919) 677-9846

CHAIN OF CUSTODY RECORD

ENCO CompQAP No.: 960038G/0

PROJECT NO.		PROJECT NO.		PO. NUMBER		MATRIX TYPE		REQUIRED ANALYSIS		PAGE		OF	
PROJECT NAME		PROJECT NAME		PROJECT NAME		PROJECT NAME		PROJECT NAME		PROJECT NAME		PROJECT NAME	
PROJECT NAME		PROJECT NAME		PROJECT NAME		PROJECT NAME		PROJECT NAME		PROJECT NAME		PROJECT NAME	
WCA Material Recovery-Brown-Field Rd.		710.01		710.01		710.01		710.01		710.01		710.01	
PROJECT LOC. (State)		PROJECT LOC. (State)		PROJECT LOC. (State)		PROJECT LOC. (State)		PROJECT LOC. (State)		PROJECT LOC. (State)		PROJECT LOC. (State)	
NC		NC		NC		NC		NC		NC		NC	
CLIENT NAME		CLIENT NAME		CLIENT NAME		CLIENT NAME		CLIENT NAME		CLIENT NAME		CLIENT NAME	
Joyce Engineering		Joyce Engineering		Joyce Engineering		Joyce Engineering		Joyce Engineering		Joyce Engineering		Joyce Engineering	
CLIENT ADDRESS (CITY, STATE, ZIP)		CLIENT ADDRESS (CITY, STATE, ZIP)		CLIENT ADDRESS (CITY, STATE, ZIP)		CLIENT ADDRESS (CITY, STATE, ZIP)		CLIENT ADDRESS (CITY, STATE, ZIP)		CLIENT ADDRESS (CITY, STATE, ZIP)		CLIENT ADDRESS (CITY, STATE, ZIP)	
2301 West Meadowview Road S-203 Greensboro, NC 27407		2301 West Meadowview Road S-203 Greensboro, NC 27407		2301 West Meadowview Road S-203 Greensboro, NC 27407		2301 West Meadowview Road S-203 Greensboro, NC 27407		2301 West Meadowview Road S-203 Greensboro, NC 27407		2301 West Meadowview Road S-203 Greensboro, NC 27407		2301 West Meadowview Road S-203 Greensboro, NC 27407	
STATION		DATE		TIME		GRAB		COMP		SAMPLE IDENTIFICATION		SURFACE WATER	
1		6-14-05		13:50		X				MW-1		X	
2		6-14-05		11:05		X				MW-2		X	
3		6-14-05		14:10		X				MW-3		X	
4		6-14-05		14:35		X				MW-4(MS/MSD)		X	
5		6-14-05		14:45		X				MW-5		X	
6		6-14-05		13:16		X				SW-1		X	
7		6-14-05		12:10		X				SW-2		X	
8		6-14-05		10:53		X				SW-3		X	
9		6-14-05		14:56		X				FIELD BLANK		X	
10										TRIP		X	
11													
12													
13													
14													
SAMPLE KIT PREPARED BY:		DATE		TIME		RELINQUISHED BY: (SIGNATURE)		DATE		TIME		RECEIVED BY: (SIGNATURE)	
CLACKSONVILLE		6/14/05		13:20		[Signature]		6/14/05		13:20		[Signature]	
RELINQUISHED BY: (SIGNATURE)		DATE		TIME		RECEIVED BY: (SIGNATURE)		DATE		TIME		RELINQUISHED BY: (SIGNATURE)	
[Signature]		6/14/05		16:09		[Signature]		6/14/05		16:09		[Signature]	
RECEIVED BY: (SIGNATURE)		DATE		TIME		RELINQUISHED BY: (SIGNATURE)		DATE		TIME		RECEIVED BY: (SIGNATURE)	
[Signature]		6/14/05		16:10		[Signature]		6/14/05		16:10		[Signature]	
RECEIVED FOR LABORATORY BY: (SIGNATURE)		DATE		TIME		CUSTODY INTACT		ENCO LOG NO.		REMARKS		Chain Codes 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	
[Signature]		6/14/05		16:10		YES		C2Y8137		Chain Codes 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		Chain Codes 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	

Environmental Conservation Laboratories, Inc.

Login Sample Disposition Form

Client Name: Joyce Login #: CBY18137
 Proj. Name: WCA - Material Recovery Date Rec'd: 6/14/05 Logged By: ala

Samples received via: Client Drop-off Lab Pickup Courier LIST AND ATTACH BILLS

Container Descriptions and Preservation

Indicate presv. type and # of each

Containers	None	HCl	HNO ₃	H ₂ SO ₄	NaOH	Other
1 L Glass						
1 L Plastic						
500 ml Plastic			1			
250 ml Plastic			10			
250 ml Glass						
4 oz Jars						
40 ml Vial		33				
Other						

Receiving Temperatures

Total Number of Coolers: 1

Cooler Number	Receipt Temperature		
<u>4.2°C</u>	<u>2-6°</u>	<u>On Ice</u>	<u>No Ice</u>
	2-6°	On Ice	No Ice
	2-6°	On Ice	No Ice
	2-6°	On Ice	No Ice
	2-6°	On Ice	No Ice
	2-6°	On Ice	No Ice
	2-6°	On Ice	No Ice

Provide details of "No Ice" in Notification/Comments.

Sample Receipt Disposition

- | | | | |
|--|------------|----|------------|
| 1. Were sample containers received intact? | <u>Yes</u> | No | |
| 2. Were sample containers properly preserved? | <u>Yes</u> | No | |
| 3. Were proper containers used for analyses requested? | <u>Yes</u> | No | |
| 4. Do sample labels match Chain-of-Custody record? | <u>Yes</u> | No | |
| 5. Were samples received under custody seal? | <u>Yes</u> | No | |
| 6. If received under custody seal, were all seals intact? | <u>Yes</u> | No | N/A |
| 7. Were volatile containers preserved (check labels only)? | <u>Yes</u> | No | N/A |
| 8. Were aqueous volatile samples headspace-free? | <u>Yes</u> | No | N/A |
| 9. Were aqueous samples checked for residual chlorine? | <u>Yes</u> | No | <u>N/A</u> |
| 10. Were all samples specified in the prelog received? | <u>Yes</u> | No | N/A |

Any discrepancies must be noted below and approved by lab management.

Client Notification

1. Does client need to be notified? Yes No
2. Who notified client? _____
3. Who was notified? _____
4. When? _____ by: Phone Fax Mail
5. Client requests following action(s) be taken:
- _____ Continue analysis and report disposition in final report.
- _____ Cancel affected analyses only (identify in comments below).
- _____ Cancel all analyses.
- _____ Other (explain in comments below).

Comments

Project Status

- _____ Samples received into lab.
- _____ Samples rejected

CS
 APPROVED BY

DATE

6/14/05



JOYCE ENGINEERING, INC.
QUALITY ASSURANCE
LABORATORY DATA REVIEW

Project Name: Wake Co. WCA Material Recovery, Brown-Field Rd.

Project Number: 710.01

Sampling Event Date: June 14, 2005

Review Date: July 5, 2005 Initials: DG

Review Date: July 7, 2005 Initials: BD

Person(s) performing the review are to initial each item on this form as acknowledgement of data acceptance, or as acknowledgement of a review issue. In the case of the latter, a brief explanation should follow the applicable item.

COMPLIANCE ANALYTE LIST(S)
(check all that apply)

NC

 Closed Facility/C & D List

 Appendix I

 X Appendix I + Detects

 Appendix II

 Subtitle D Leachate List

Other: RCRA Metals, dissolved Barium from MW-3, & dissolved lead from MW-5

1.0 CHAIN OF CUSTODY (COC) REVIEW

DG BD COC was properly signed by all parties.

DG BD Correct project name and number are on the form.
Yes, New JEI project# 710.01 is used

DG BD Sample receipt condition at laboratory (temperature, bottleware condition, etc.) was acceptable.

DG BD Each sample and blank submitted for analysis appears in the data report.

2.0 SAMPLE HOLDING TIMES

DG BD Holding times for extraction and/or analysis were met for each analytical method.

3.0 LABORATORY QUALITY CONTROL REVIEW

DG BD Laboratory analyzed at least one internal blank for each method, where applicable.

DG BD Surrogate recoveries are provided for each analytical method, where applicable.

DG BD Surrogate recoveries for each method are within the acceptable limits (i.e., at least 50% of the surrogates were within range).

DG BD MS/MSD/LCS data results are provided for each analytical method.

DG BD MS/MSD/LCS recoveries for each method are within the acceptable limits (i.e., at least 1 of the 3 were within range).

4.0 ANALYTE LISTS/METHODS

DG BD The proper number of constituents are present for each analyte list as identified above (including detects where applicable).

DG BD Proper EPA SW-846 analytical methods were used for analysis.

5.0 DATA REPORTING

DG BD All analytical reporting associated with the event was performed by the contracted lab.

DG BD Trip, field and/or equipment, and laboratory blank results have all been reported. All detects for blanks are listed below by constituent. All laboratory method blanks, if any, have been 'flagged' with a 'B' where detected in other samples as appropriate and a laboratory narrative was provided. If the sample was flagged by the laboratory and is not within 5X of the concentration in the blank (or 10X for commonly detected laboratory contaminants-acetone, methylene chloride and phthalates), list below with explanation if flags should be removed. If flags need to be added, also list below.

DG BD It is clear from the laboratory report that samples have or have not been diluted during analysis, and if the samples have been diluted, the result is reported as a multiple of the dilution (e.g., a sample diluted 10x resulting in an analytical detection of 1.0 should be reported as 10). Those that have been diluted are listed below with the dilution factor.

DG BD The report provides the reporting limit for each constituent.

DG BD The results were reported at or below their proper reporting limits (e.g. NC Solid Waste Section approved PQL's). Those that are not reported correctly are listed below (by constituent) with the proper reporting limit listed beside them. State if the reporting limit error is due to dilutions.

DG BD The following inorganic and organic constituents were reported above their respective reporting limits in groundwater samples or field/equipment/trip blanks (list by constituent and note if exclusively an Appendix II constituent). State if the concentrations are blank-qualified and/or if the detect is new and/or suspect (i.e. a common laboratory or field contaminant). This may warrant a call to the appropriate laboratory to verify the detection.

Barium *MW-2 @ 520 ug/L*
MW-3 @ 2600 ug/L

Barium, filtered *MW-3 @ 2700 ug/L*

Lead *MW-5 @ 92 ug/L*

DG BD The following inorganic and organic constituents were reported above their respective EPA MCL's in wells, surface points or field/equipment/trip blanks (list by constituent):

Barium *MW-3 @ 2600 ug/L*
Barium, filtered *MW-3 @ 2700 ug/L*
Lead *MW-5 @ 92 ug/L*

DG BD The following inorganic and organic constituents were reported above their respective NC 2L Drinking Water Standards in wells, surface points, or field/equipment/trip blanks:

Barium *MW-3 @ 2600 ug/L*
Barium, filtered *MW-3 @ 2700 ug/L*
Lead *MW-5 @ 92 ug/L*

DG BD The following inorganic and organic constituents were detected in a well or surface water point at concentrations outside of their historical range (more than 5X previous concentrations and including sulfide and cyanide). List by constituent. If in Detection Monitoring, are there any apparent SSI's? (if yes, do "unofficial stats" asap). **These items warrant a call to the appropriate laboratory to verify the detection(s).**

DG BD The following inorganic or organic constituents were detected for the **first** time in a well or surface water point. Also indicate whether or not the same constituent has been detected in other sites wells in recent events (last 1-2 years) and if it is Appendix I – 5.5 or Appendix II – 5.1. List by constituent. **This warrants a call to the appropriate laboratory to verify the detection(s).**

DG BD Other report issues:

DG BD List all details for initial and follow up notifications to laboratories below. State the issue(s), the person contacted, the date of contact, the method of contact (email, phone, etc.) and your initials. Then list details of the follow-up contact/response/action(s)

DATE: 6-14-05



GROUND WATER SAMPLING LOG

Project Name: Wake Co. - Brownfield Rd Project No./Task No.: 43902. 710.01

Well ID: MW-1 Sampler(s): Ben Draper / Jeramey Kerly / Van Burbach

Well Location: On left side of Brownfield Rd Btwn. the

Well Diameter: 2 gates 2 inches

Initial Depth to Water (DTW): 24.22 feet

Depth to Bottom (DTB): 52.75 feet

Water Column Thickness (WCT): 28.53 feet [DTB-DTW]

Calculation for One Well Volume (WV):

For 2" Well: WCT X 0.163 = 4.65 gallons

For 4" Well: WCT X 0.653 = gallons

For THREE Well Volumes: WV X 3 = 13.95 gallons

Actual Amount Purged/Bailed: 13.95 gallons

Purged with: DISPOSABLE BAILER

Sampled with: " "

Depth to Water before Sampling: 24.20 feet

Gallons	Time	Temp(°C)	pH	Cond. (µS)	Turb.(ntu)	Initials
0	0950	18.7	4.94	194.6	17.6	JK
4.65	0957	19.8	4.57	193.8	>1000	JK
9.30	1004	21.1	4.55	195.3	>1000	JK
13.95	1011	21.4	4.55	192.9	>1000	JK
Before Sampling	1350	21.6	4.65	191.3	36.3	JK

Comments (weather conditions, odor, color, silt, etc.): HOT! Sunny. mid 90's

Signature: [Signature] Date: 6/14/05

QA/QC Sign Off: [Signature] Date: 7-29-05

DATE: 6/14/05**GROUND WATER SAMPLING LOG**Project Name: Wake Co. - Brownfield Rd Project No./Task No.: 710.01Well ID: MW-2 Sampler(s): JK/BD/VBWell Location: Northeast Side of landfill in low area

Well Diameter: 2 inches
Initial Depth to Water (DTW): 16.97 feet
Depth to Bottom (DTB): 35.00 feet
Water Column Thickness (WCT): 18.03 feet [DTB-DTW]

Calculation for One Well Volume (WV):For 2" Well: WCT X 0.163 = 2.94 gallonsFor 4" Well: WCT X 0.653 = gallonsFor THREE Well Volumes: WV X 3 = 8.82 gallonsActual Amount Purged/Bailed : 9.8 gallonsPurged with: Disposable BailerSampled with: " "Depth to Water before Sampling : 16.91 feet

Gallons	Time	Temp(°C)	pH	Cond. (µS)	Turb.(ntu)	Initials
<u>2</u>	<u>10:38</u>	<u>21.3</u>	<u>4.75</u>	<u>365</u>	<u>23.2</u>	<u>VB</u>
<u>3</u>	<u>10:42</u>	<u>20.1</u>	<u>4.63</u>	<u>347</u>	<u>56.2</u>	<u>VB</u>
<u>6</u>	<u>10:46</u>	<u>19.9</u>	<u>4.69</u>	<u>358</u>	<u>72.7</u>	<u>VB</u>
<u>9</u>	<u>10:51</u>	<u>18.8</u>	<u>4.73</u>	<u>368</u>	<u>54.8</u>	<u>VB</u>
Before Sampling	<u>11:05</u>	<u>22.8</u>	<u>4.93</u>	<u>356</u>	<u>52.9</u>	<u>VB</u>

Comments (weather conditions, odor, color, silt, etc.): Hot + Sunny
no wind.Signature: [Signature] Date: 6/14/05QA/QC Sign Off: [Signature] Date: 7-29-05

DATE: 6/14/05**GROUND WATER SAMPLING LOG**Project Name: Wake Co. - Beowolf Rd. Project No./Task No.: 710.01Well ID: MW-3 Sampler(s): JK/BDWell Location: Northeast side of landfill past MW-2Well Diameter: 2 inchesInitial Depth to Water (DTW): 25.13 feetDepth to Bottom (DTB): 34.50 feetWater Column Thickness (WCT): 9.37 feet [DTB-DTW]**Calculation for One Well Volume (WV):**For 2" Well: WCT X 0.163 = 1.53 gallonsFor 4" Well: WCT X 0.653 = gallonsFor THREE Well Volumes: WV X 3 = 4.59 gallonsActual Amount Purged/Bailed: 4.59 gallonsPurged with: DISPOSABLE BAIERSampled with: " "Depth to Water before Sampling: 25.12 feet

Gallons	Time	Temp(°C)	pH	Cond. (µS)	Turb.(ntu)	Initials
0	1132	19.6	4.56	163	23.1	JK/BD
1.53	1135	18.5	4.38	315	703	JK/BD
3.06	1138	18.3	4.32	436	955	JK/BD
4.59	1140	18.2	4.36	480	>1000	JK/BD
Before Sampling	1410	20.8	4.51	467 ⁸⁰ 318	318	BD

Comments (weather conditions, odor, color, silt, etc.): Hot! Sunny. mid 90's.Parameters Taken After SamplesSignature: [Signature] Date: 6-14-05QA/QC Sign Off: [Signature] Date: 7-29-05

DATE: 6/14/05**GROUND WATER SAMPLING LOG**Project Name: Wake Co. - Brownfield Rd. Project No./Task No.: 710.01Well ID: mw-4 Sampler(s): SK/BDWell Location: Backside of landfill near sed pond.

Well Diameter: 2 inches
Initial Depth to Water (DTW): 11.39 feet
Depth to Bottom (DTB): 27.00 feet
Water Column Thickness (WCT): 15.4 + 61⁹¹² feet [DTB-DTW]

Calculation for One Well Volume (WV):For 2" Well: WCT X 0.163 = 2.5 gallonsFor 4" Well: WCT X 0.653 = gallonsFor THREE Well Volumes: WV X 3 = 7.6 gallonsActual Amount Purged/Bailed : 7.6 gallonsPurged with: Disposable BailerSampled with: " "Depth to Water before Sampling : 11.34 feet

Gallons	Time	Temp(°C)	pH	Cond. (µS)	Turb.(ntu)	Initials
<u>0</u>	<u>12:00</u>	<u>18.8</u>	<u>4.94</u>	<u>161</u>	<u>616</u>	<u>BD</u>
<u>2.5</u>	<u>12:02</u>	<u>17.7</u>	<u>5.09</u>	<u>168</u>	<u><1000</u>	<u>BD</u>
<u>5.0</u>	<u>12:04</u>	<u>17.8</u>	<u>5.07</u>	<u>181</u>	<u><1000</u>	<u>BD</u>
<u>7.6</u>	<u>12:06</u>	<u>17.5</u>	<u>5.06</u>	<u>190</u>	<u><1000</u>	<u>BD</u>
Before Sampling	<u>1435</u>	<u>21.8</u>	<u>4.85</u>	<u>178</u>	<u>87.2</u>	<u>912</u>

Comments (weather conditions, odor, color, silt, etc.): Hot! Sunny 90'S.

* Measurements after sampling

Signature: [Signature] Date: 6/14/05QA/QC Sign Off: [Signature] Date: 7-29-05

DATE: 6/14/05**GROUND WATER SAMPLING LOG**Project Name: Wake Co. - Brownfield R/P Project No./Task No.: 710.01Well ID: MW-5 Sampler(s): Ben Draper / Jeane KerlyWell Location: Back Corner of Landfill past Sed. PondWell Diameter: 2 inchesInitial Depth to Water (DTW): 10.37 feetDepth to Bottom (DTB): 24.00 feetWater Column Thickness (WCT): 13.63 feet [DTB-DTW]**Calculation for One Well Volume (WV):**For 2" Well: WCT X 0.163 = 2.22 gallonsFor 4" Well: WCT X 0.653 = gallonsFor THREE Well Volumes: WV X 3 = 6.66 gallonsActual Amount Purged/Bailed: 6.66 gallonsPurged with: Disposable BailerSampled with: 1" 11"Depth to Water before Sampling: 10.51 feet

Gallons	Time	Temp(°C)	pH	Cond. (µS)	Turb.(ntu)	Initials
0	1248	16.7	5.31	116.4	274	JK
2.22	1250	16.2	5.24	115.6	71000	JK
4.44	1253	15.9	5.28	113.9	71000	JK
6.66	1256	16.0	5.28	114.3	71000	JK
Before Sampling	14:45	19.8	5.44	111.8	>1000	BD

Comments (weather conditions, odor, color, silt, etc.): Hot! Sunny. Low 90's.FIELD BLANK TAKEN @ 14:56Signature: [Signature] Date: 6-14-05QA/QC Sign Off: [Signature] Date: 7-27-05



DATE: 6/14/05

SURFACE WATER MONITORING LOG

Project Name: Wake Co. - Brownfield Rd. Project/Task No.: 710.01

Surface Point ID: SW-1 Sampler(s): JK/BD

Location: Up stream of P-1S & P-1D northwest property boundary.

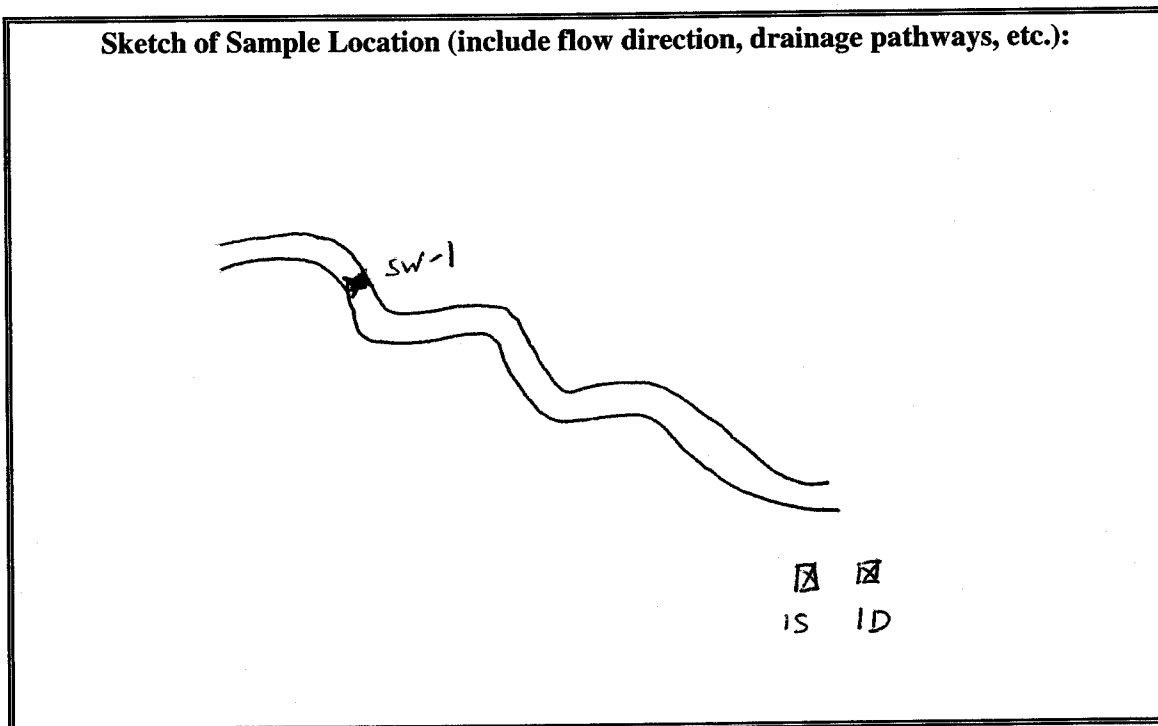
Field Parameters:

Time of Sampling: 1316
pH: 6.23
Temperature : 22.8 (°C)
Conductivity : 169 (µS)
Turbidity : 10.5 (ntu)

Comments/Sample Description(weather conditions, odor, color, silt, etc.):

Hot. Sunny. mid 90's

Sketch of Sample Location (include flow direction, drainage pathways, etc.):



Signature: [Signature] Date: 6/14/05

QA/QC Sign Off: [Signature] Date: 7-29-05



DATE: 6/14/05

SURFACE WATER MONITORING LOG

Project Name: Wake Co. - Brownfield Rd Project/Task No.: 710.01

Surface Point ID: SW-2 Sampler(s): JK/BD

Location: Between MW-3 and MW-4 in woods

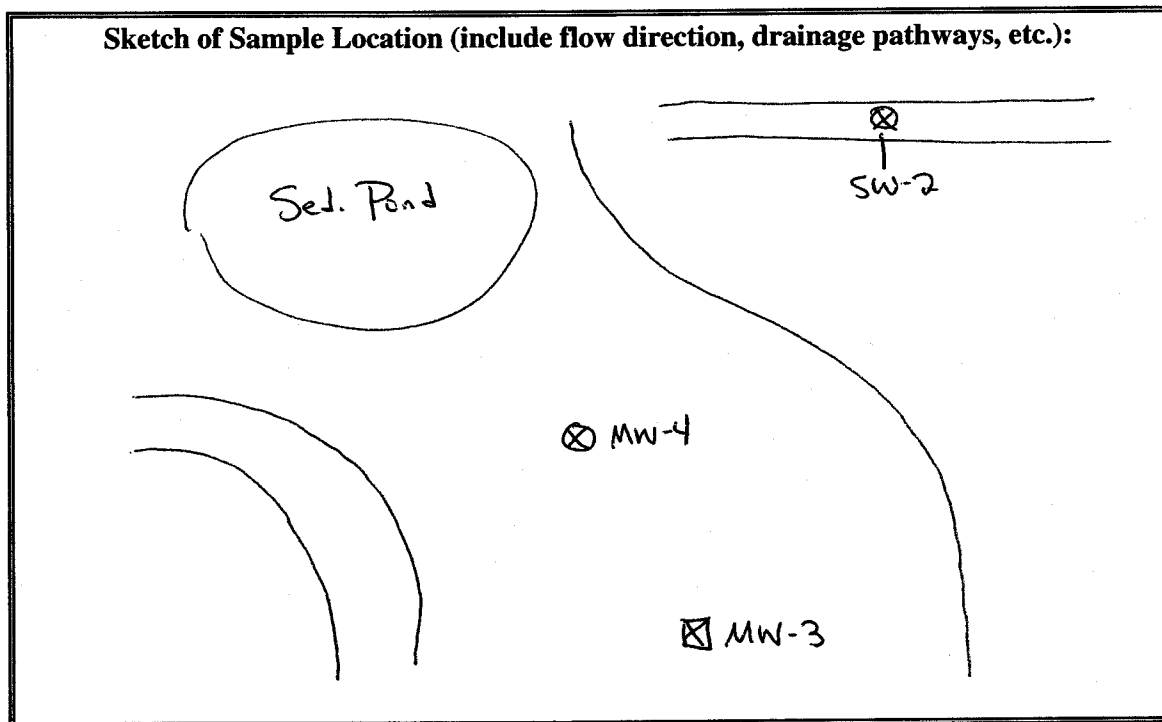
Field Parameters:

Time of Sampling:	<u>1210</u>	
pH:	<u>6.08</u>	
Temperature :	<u>24.6</u>	(°C)
Conductivity :	<u>134.1</u>	(µS)
Turbidity :	<u>49.9</u>	(ntu)

Comments/Sample Description(weather conditions, odor, color, silt, etc.):

Hot! Sunny mid 90's

Sketch of Sample Location (include flow direction, drainage pathways, etc.):



Signature: [Signature] Date: 6/14/05

QA/QC Sign Off: [Signature] Date: 7-29-05



DATE: 6/14/05

SURFACE WATER MONITORING LOG

Project Name: Wake Co. - Brownfield Rd Project/Task No.: 710.01

Surface Point ID: SW-3 Sampler(s): JK/BD/VB

Location: Stream past MW-2

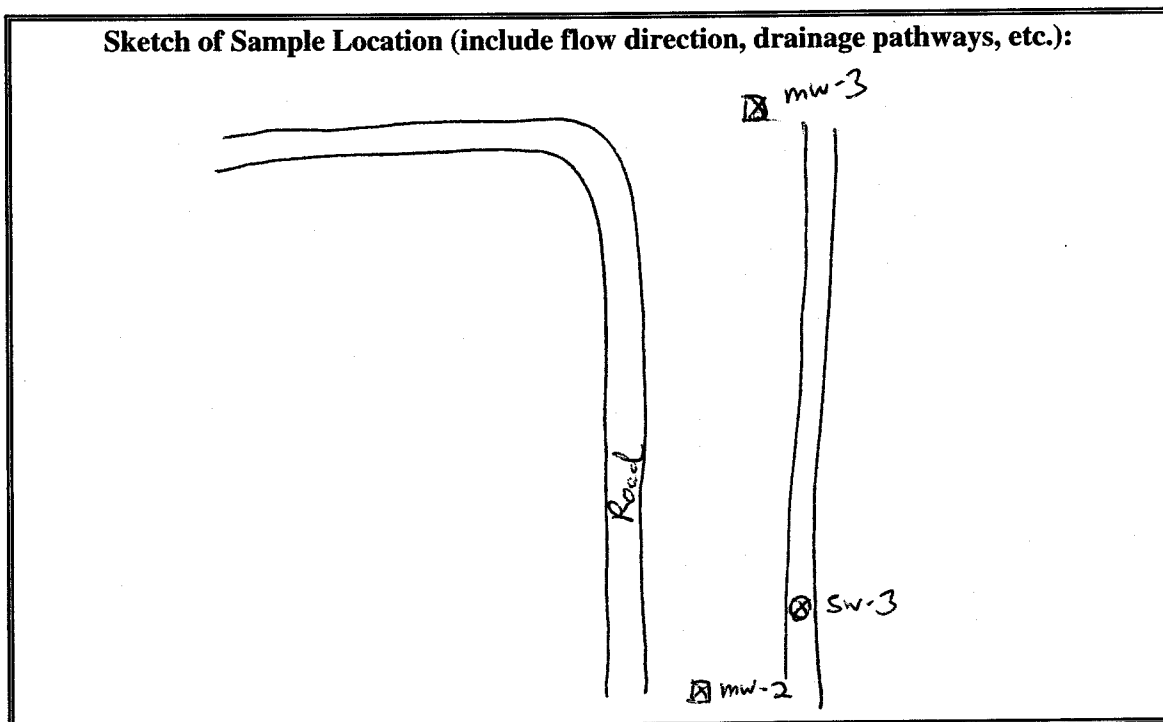
Field Parameters:

Time of Sampling: 1053
pH: 6.10
Temperature: 24.3 (°C)
Conductivity: 470 (µS)
Turbidity: 9.50 (ntu)

Comments/Sample Description (weather conditions, odor, color, silt, etc.):

HOT! Sunny! Mid 90's.

Sketch of Sample Location (include flow direction, drainage pathways, etc.):



Signature: [Signature] Date: 6/14/05

QA/QC Sign Off: [Signature] Date: 7-29-05